CAPT Dabelić is a first generation American who graduated with a Bachelor of Science in Biomedical Science from Texas A&M University, College Station, in 1997. She worked as a research assistant at M.D. Anderson Cancer Center in Houston, TX prior to her acceptance to University of Texas Health Science Center Medical School in Houston, TX in 1998. CAPT Dabelić was awarded the Navy's Health Professional Scholarship Program for medical school. Upon graduation, she was selected to post-graduate medical education training at Naval Medical Center Portsmouth, VA for a Transitional Internship in 2002.

Upon internship graduation and during primary care shortages in Navy medicine she provided care at Naval Medical Center Portsmouth as a General Medical Officer. CAPT Dabelić proceeded to Family Medicine residency at Naval Hospital Pensacola (NHP), FL in 2006. She served as Chief Resident her final year and completed her training with distinguished honors.

CAPT Dabelić utilization tour in Family Medicine was at Naval Branch Health Clinic Dahlgren, VA in 2009, where she assisted in the realignment from Navy Medical Center Bethesda to Naval Health Clinic Patuxent River. She returned to NHP in 2011 as faculty to teach future Family Medicine physicians and was a Patient Centered Medical Home Port team leader. She was subsequently selected as Department Head of the third largest medical home in Navy Medicine. CAPT Dabelić deployed in 2013 in support of Operation Enduring Freedom at Joint Task Force Guantanamo Bay, Cuba where she was responsible for the medical care of over 400 detainees. Upon completion of deployment, she resumed Department Head responsibilities and became Family Medicine Residency Program Chair through 2015. A recognized physician leader, she was selected as Director of Medical Services for Naval Hospital Guantanamo Bay, Cuba.

Additionally, she supported base command as the Public Health Emergency Officer during the Zika pandemic of 2016. In 2017, CAPT Dabelić transferred to Navy Personnel Command as the primary detailer for over 900 medical corps officers within Operational and Family Medicine.

Her personal decorations include the Meritorious Service Medal, Navy and Marine Corp Commendation Medals, Navy and Marine Corps Achievement Medal, and various campaign and service ribbons.